Work Ordo June-12-13 9:2	er ID 102992 3:55 AM		*10	2992*						Page 1
Item ID: Revision ID: Item Name:	D4148-041  Crosstube Lug Assembly, Fwd		Accept	*N900	<b>040</b> ′	100	)* s	etup Star Stop	ıvı	S1* S2*
Start Date: Required Date: Reference:	6/11/13 <b>Start Qty:</b> 4.00	*4* *4*		Cust Item II Customer:	D:		ž		N	<b>.</b> 7/
Approvals:	Process Plan:	Date: 13-6-13  Date:	Tooling: SPC (Y/N):		te:		R	tun Star Stop	, "I <b>V</b> I	R1* R2*
Sequence ID/ Work Center II	Operation Description		Set Up/ Run Hours	Tool ID		Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									
D4148	D									7
*100* *100* Small Fab  Small Fab	Memo 1- Assem	ble as per dwg	0.00				4x			)3 pz
*110; *110*	QC5- Inspect part con	npleteness to step on W/O	0.00	21			4			
QC Quality Control	Memo		0.00	379					wryo .	
120 *120*	Identify as per dwg &	Stock Location.	0.00				W			$\mathcal{C}_{\mathcal{O}}$
Packaging Packaging	Memo		0.00				<del>`{}-</del>		<u> </u>	13-7-1

機構

DQA:		Date:	:					_				TRACE!
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UF		/ork Order up	odate only	AEROSPACE
Work Orde	r.				DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part N					Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing	<b>⊣</b>	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	o				Suspected Unapproved			Large Fab	Composite		Supplier	
Root				Desci	ription of work order update	l .	Initial	Acti	on	Sign &		
Cause	Da	te Step	Qty		or non-conformance	Ch	nief Eng	Descri	iption	Date	Verification	QC Inspector
Design												
Doc/Data	_											
Equip/Tooling	_											
Handling/Pre	_											
Material	-					1						
Operator	$\dashv$											
Offset/Setup Process											e e	
Supplier												
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Unapproved												
		<u> </u>				FAI	ULT CA	TEGORY				
Landin	g Gear				General				<del> </del>		<del></del>	
	Bend	ing			Bend	Γ''	Folio/F	rogram		Outside Dim	ensions	Pressure/Forced
	Cent	e Not Conce	entric		BOM/Route		Grain	Ū		Over/Under	tolerance	Set-up
Ī	Centre Not Concentric Cracks				Broken/Damage/Defect		Hardwa	ire	<u> </u>	Part Incorre	ct	Temperature/Cure
	Crimp/Kink/Ripple/Wave				Burrs		Inspect	ion Incomplete/Un	qualified	Part Lost/Mi	issing	Weld
	Cuffs				Contamination		1	ions Incomplete/U	<del>}</del>	Part Moved		Wrong Stock Pulled
	Crushing				Countersink		Misalig	ned/off center		Positioned V	Vrong	<b></b>
Ī	Heat Treat				Cut Too Short		Mislabe			Power Loss/	Surge \[ \bigsize \]	Other
ſ	Inspection Strip in Tube				Drawing		Misrea	d	_	_	<u>.                                    </u>	
Γ	Mark	s/Chatter			Drill Holes		Off-set					
	Turn	ng Sequence	è		Finish		Out of	Calibration				
	Wave	e/Twist in Tu	be		Fit/Function		Out of	Sequence				

Work Ord June-12-13 9:2		02992		*102	9992*							Page 2
Item ID: Revision ID: Item Name:	D4148-041 Crosstube L	ug Assembly, Fwd		Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop		S1*
Start Date: Required Date: Reference:	6/11/13 : 6/11/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:		-				
Approvals:	Process P		Date:	Tooling: SPC (Y/N):		ate:ate:			Run	Start Stop		R1* R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
130 *130* QC		QC21- Final Inspection  Memo	- Work Order Release	0.00						13/	7/10	#

Quality Control

\$13-07-10

DQA:			Date:										A PT
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFOI	RMANCE / U		ork Order up	odate only	A E R O S P A C E
Mante Oud						DISPOSITION				-	PARTMENT,		
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Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
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	-	Centre Not Concentric				Broken/Damage/Defect	⊢	Hardwa	ro.	-	Part Incorre	<del>-</del>	Set-up Temperature/Cure
	Cracks Crimp/Kink/Ripple/Wave				-	Burrs	$\vdash$	1	ire ion Incomplete/Ur	auglified	Part Lost/Mi	<del> </del>	Weld
	Cuffs Cuffs					Contamination	$\vdash$	1 .	•	· —	Part Moved	· · ·	-
	Crushing				$\vdash$	Countersink	$\vdash$	1	ions Incomplete/l ned/off center	, I	Positioned V	<u></u>	Wrong Stock Pulled
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	Inspection Strip in Tube				<u> </u>	Drawing	$\vdash$	Misread		<u> </u>	Ti owei rossi	Juige	Outei
	Marks/Chatter					Drill Holes	<del> </del>	Off-set					
	Turning Sequence					Finish	$\vdash$	1	Calibration				
		Wave/Tw	-			Fit/Function		1	Sequence				
	L				i		1	1					

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## **Picklist Print**

June-12-13 9:23:54 AM

Work Order ID:

102992

Parent Item:

D4148-041

Parent Item Name:

Crosstube Lug Assembly, Fwd

**Start Date: 6/11/13** 

Required Date: 6/11/13

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP Rev:A 10.06.24 new issue DD verf:EC

IPP Rev:B 10.07.22 as per revB DD verf:JLM

IPP Rev:C 10.10.29 as per revC

DD verf:EC

IPP REV:D 11.03.02 AS PER DWG REV.D DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location		Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21043-3		Purchased	No			100	Each	1,541.0000	4	8	1	( )	/- /-
Nut									· · · . · . · . ·	~~~ · · · · · · · · · · · · · · · · · ·	4	105/	07/01
				Location		Loc Oty	<u>L</u>	oc Code		_			
				FG		80				/			
					103691	80							
				GA		106							
					123899	106			-				
				ST315		1355							
					123899	196				ý			
					124555	1159				<u> </u>	1		
MS21043-4		Purchased	No			100	Each	2,107.0000	1	12	$\mathcal{I}/\ell$	/	/_ /
Nut											J)	3/1	2+/07
				<b>Location</b>		Loc Qty	<u>L</u>	oc Code					
				FG		36						•	
					104603	36							
				GA		2							
					121652	2							
				ST315		2069							
					121162	25							
					123021	3							
					123525	29							
					123900	2							
					125654	1108			<del>- '</del>	$\overline{}$			
					m125807	902			/e				+

DQA:			Date:			WORK ORDER NON	cc		DRARRICE / LIE	DATE				DART
QA Closed:			Date:			WORK ORDER NON	-((	JNFOI	RIVIAINCE / UF	DATE	W	ork Order up	odate only	AEROSPACE
Work Orde	r:					DISPOSITION				AGAINST		PARTMENT		
Part N	lo.					Rework Scrap Use-as-is Suspected Unapproved		Therm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Desc	ription of work order update	ı	nitial	Acti	on		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	iption		Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved			·				F.A.	III T CA						
							FA	ULI CA	regory					
Landi		Gear Bending Centre No Cracks Crimp/Kii Cuffs Crushing Heat Trea Inspectio Marks/Ch	nk/Ripple at n Strip in natter	/Wave Tube		General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish		Grain Hardwa Inspecti Instruct Misalig Mislabe Misread Off-set	ion Incomplete/Un ions Incomplete/U gned/off center eled	-		Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	tolerance ct ssing Vrong	Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
İ		1  Waye/Tu	rict in Tuk			Fit/Function		Out of	Soguenco					

June-12-13 9:23:54 AM

Start   Star	Work Order ID:	102992							
Location   Loc Oty   Loc Code	Parent Item:	D4148-041					Start	Date: 6/11/13	Required Date: 6/11/13
Location   Loc Ote   Loc Code   ST04   ST0	Parent Item Name:	Crosstube Lug Assembly, Fwd					Start	<b>Qty:</b> 4.00	Required Qty: 4.09
ST014   38   100513   3   3   4   4   4   4   4   4   4	D2690-6 Lanyard Assembly	Manufactured	No		100	Each	54.0000	1	4 53 /07/09
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99808 1	•			94775	9				_
ST016				95935	1				
102246   16				99808	1				_
102246   16				ST016	16				
Manufactured No   100   Each   29,0000   1   4   3   67									
Location   Loc Oty   Loc Code   ST464   29	D3910-1	Manufactured	No			Each	29.0000	1	
Location   Loc Otv   Loc Code   ST464   29		Manufactured				Lucii	29.0000	•	* ( 1)/3 /07 /1
ST464 29  100342 26 81474 2 89772 1  Manufactured No 100 Each 41.0000 1  Location Loc Oty Loc Code  ST144 41 100346 36 97517 5  1004148-1 Manufactured No 100 Each 23.0000 2  Location Loc Oty Loc Code  ST145 23 100297 21	21332 <b></b> 2 <b>2</b> 8			Location	Loc Oty		Loc Code		
100342 26 81474 2 89772 1  Manufactured No 100 Each 41.0000 1  Location Loc Oty Loc Code ST144 41 100346 36 97517 5  Manufactured No 100 Each 23.0000 2 8							<u>Bot Cout</u>		
State   Stat								//	-/
No   100   Each   41,0000   1   4   37   67     Manufactured   No   100   Each   41,0000   1   4   37   67     Mounting Lug   Loc Code   ST144   41   100346   36   97517   5   5     Manufactured   No   100   Each   23,0000   2   8   37   67     Manufactured   No   Loc Code   ST145   23   100297   21   100297   21   100000   1   4   37   67     Manufactured   No   Loc Code   ST145   23   100297   21   100297   21   100000   1   4   37   67     Manufactured   No   Loc Code   Loc Code   ST145   23   100297   21   100297   21   100297   21   100000   1   4   37   37   4   37   37   37   37								_ 9	_
Manufactured   No   100   Each   41,0000   1     4   37   67     Mounting Lug   Loc Oty   Loc Code     ST144									- ~ /
Location   Loc Oty   Loc Code   ST144   41   100346   36   97517   5   100   Each   23,0000   2   8   (3 / 07 / 07 / 07 / 07 / 07 / 07 / 07 / 0				89772					- (// /
Location   Loc Oty   Loc Code   ST144		Manufactured	No		100	Each	41.0000	1	4
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100346 36 97517 5  O4148-1 Manufactured No 100 Each 23.0000 2  Location ST145 23 100297 21				<b>Location</b>	Loc Oty		Loc Code		
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97517 5  O4148-1								7	
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						DISPOSITION					EPARTMENT		
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						Rework	ı		Skid-tube	Crosstube		Water Jet	Engineering
Part N	۱o					Scrap			Machining	Small Fab	<b></b> ∤	d. Eng. Coor.	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR I	۱o. <u>-</u>				-	Suspected Unapproved			Large Fab	Composite		Supplier	
Root					Desc	ription of work order update		nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
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		Bending				Bend		Folio/P	rogram		Outside Dim	iensions	Pressure/Forced
		Centre Not Concentric				BOM/Route		Grain			Over/Under	tolerance	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorre	ct	Temperature/Cure
	Crimp/Kink/Ripple/Wave					Burrs		Inspect	ion Incomplete/Ur	nqualified	Part Lost/Mi	issing	Weld
	Cuffs					Contamination		Instruct	ions Incomplete/U	Jnclear	Part Moved		Wrong Stock Pulled
	Crushing					Countersink		Misalig	ned/off center	Γ	Positioned V	Vrong	_
	Heat Treat					Cut Too Short		Mislabe	eled		Power Loss/	Surge	Other
	Inspection Strip in Tube					Drawing		Misread	d	_	_		
	Marks/Chatter					Drill Holes		Off-set					
	Turning Sequence					Finish		Out of (	Calibration			· · · · · · · · · · · · · · · · · · ·	
		Wave/Tw	ist in Tub	e e		Fit/Function		Out of	Sequence				

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June-12-13 9:23:54 AM

Parent Item Name:   Crosstube Lug Assembly, Fwd   No   100   Each   24 0000   1   4   33   074   1	Work Order ID:	102992								
Data   No   Data   Da	Parent Item:	D4148-041						Start	Date: 6/11/13	Required Date: 6/11/13
Location   Loc Otc   Loc Code	Parent Item Name:	Crosstube Lug Assembly, Fwd						Star	t Qty: 4.00	Required Qty: 4.00
ST145	D4148-3 Stud Receiver, Lower	Manufactured	No			100	Each	24.0000	1	1/5/07/0
D4148-5   Manufactured   No   100   Each   35,0000   1   4   3   7				Locatio	<u>n</u>	Loc Qty		Loc Code		
## Date				ST145		24				
## D4148-5   Eyebit Stud					100534	20				
Location   Loc Orte   Code					97610	4			4_	- // /
ST145 35 35	D4148-5 Eyebolt Stud	Manufactured	No			100	Each	35.0000	1	4 8/3/07/0
ST145 35 35				Locatio	<u>n</u>	Loc Qty		Loc Code		
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AN3C12A Bolts  Purchased  Purchas										
AN3C12A Bolts    Location   Loc Otv   Loc Code     ST351   133     123648   5     124561   126     124858   2     AN4C13A   Purchased   No   100   Each   238.0000   3     BOLT   Location   Loc Otv   Loc Code     ST356   164     ST356   164     ST356   164     ST3578   100     ST514   72     124805   72     ST516   2					97587	1			1 0	
Bolts    Location   Loc Otv   Loc Code					99176	2				- 0//
ST351 133	4	Purchased	No			100	Each	133.0000	2	8 5/3/07
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124561 126 124858 2  AN4C13A Purchased No 100 Each 238.0000 3 12    Location   Loc Oty   Loc Code     ST356   164       123900   3       m125709   61       m125978   100     ST514   72       124805   72     ST516   2					123648					
AN4C13A Purchased No 100 Each 238.0000 3 12    Location   Loc Oty   Loc Code     ST356   164					124561				8	
BOLT    Location   Loc Oty   Loc Code					124858	2				_ //
Location         Loc Oty         Loc Code           ST356         164		Purchased	No			100	Each	238.0000	3	12
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123900 3 m125709 61 m125978 100 ST514 72 124805 72				Locatio	<u>n</u>	Loc Oty		Loc Code		
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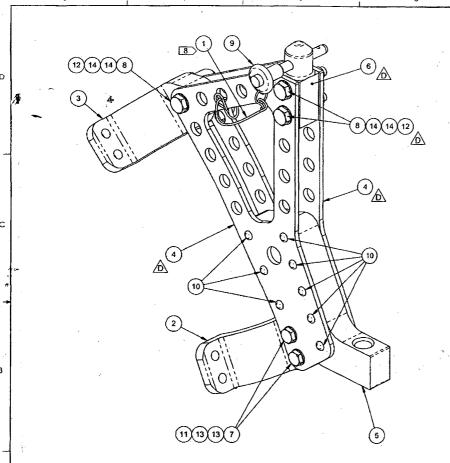
DQA:			Date:		•	WORK ORDER NON-	.cc	JNEO	MANCE / II	DDATE				**	DART
QA Closed:			Date:			WORK ORDER NOR		) (1 O			Wc	ork Order up	date only	1	A E R O S P.A C E
Work Orde	ır.		-			DISPOSITION				AGAINST [	DEI	PARTMENT	PROCESS		,
WOIR OIGE						Rework			Skid-tube	Crosstube	$\neg$		Water Jet	٦	Engineering
Part N	lo.					Scrap		, ,	Machining	Small Fab		Pro	d. Eng. Coor.	7	Quality
						Use-as-is		Thern	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR N	lo					Suspected Unapproved		٠	Large Fab	Composite			Supplier	╛	
Root					Desci	ription of work order update	1	nitial	Ac	tion		Sign &		T	
Cause	[	Date	Step	Qty		or non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	$\perp$	QC Inspector
Design														İ	
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Supplier	4													ı	
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Landir	ng Gea					General	FAI	ULI CA	EGORY					—	
		nding				Bend		Folio/P	rogram	Γ		Outside Dim	ensions	$\neg_{P}$	ressure/Forced
	_	_	ot Concer	ntric		BOM/Route		Grain	8	1		Over/Under	<u> </u>	_	et-up
		acks				Broken/Damage/Defect		Hardwa	re	Ī		Part Incorre	—	_	emperature/Cure
Ì	_		nk/Ripple	/Wave		Burrs		1	on Incomplete/U	ngualified		Part Lost/Mi	}		Veld
Ì	Crimp/Kink/Ripple/Wave Cuffs					Contamination		1	ions Incomplete/	<b> </b>		Part Moved	-  -		Vrong Stock Pulled
ľ	Crushing					Countersink		4	ned/off center	ľ		Positioned V	∟ Vrong	_	-
ļ	Heat Treat					Cut Too Short		Mislabe		Ī		Power Loss/	Surge	Пс	Other
	Inspection Strip in Tube					Drawing		Misread	<b>!</b>	_		•			
	М	arks/Ch	atter			Drill Holes		Off-set							
	Tu	rning S	equence			Finish		Out of (	Calibration						
_	W	ave/Tw	rist in Tub	oe		Fit/Function		Out of 9	Sequence						

June-12-13 9:23:54 AM

MST984-C413 PNICOUCK RELEASE    Location   Loc ON   Loc Code	- F	102992 D4148-041 Crosstube Lug Assembly, Fwd						Pate: 6/11/13  Qty: 4.00	Required Date: 6/11/13 Required Ozy: 4.00
Location   Loc Ort   Loc Code	MS17984-C413		No		100	Each			4 2513 107/
ST332   34	TIN, QUICK REDEASE			Location	Loc Oty		Loc Code		
MS20615-4M18  Rivet    Location   Loc Otr   Loc Code							<u>Lot Code</u>		
MS20615-4M18  Rivet    Location   Loc Otv   Loc Code	-(3)								<u>•</u>
Nasitage									- / /
NAS1149C0332R Purchased No 100 Each 13,385,000 4 16    Location   Loc Oty   Loc Code	MS20615-4M18 Rivet	Purchased	No	11123027		Each	603.0000	8	32/5/3 /07/09
NAS1149C0332R Purchased No 100 Each 13,385,000 4 16    Location   Loc Oty   Loc Code				Location	Loc Qty		Loc Code		
NAS1149C0332R Purchased No 100 Each 13,385.000 4 16 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	•							•	
NAS1149C0332R Washer    Location   Loc Oty   Loc Code			•						_
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Location   Loc Oty   Loc Code   FP001   264	NAS1149C0332R	Purchased	No			Each	13,385.000	4	16 /
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FP001 264  123355 264  ST292 494  123248 18  123759 385  125268 91  ST511 10000  ST511 10000  ST517 2627  124580 2627  124				Location	Loc Qty		Loc Code		
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NAS1149C0432R Purchased No 100 Each 3,564.0000 6 24 1912441 693									· .
NASI 149C0432R Purchased No 100 Each 3,564,0000 6 24									
123759   385									<del></del>
NAS1149C0432R Purchased No 100 Each 3,564.0000 6 24								16	<del></del>
125654 10000 ST517 2627 124580 2627  NAS1149C0432R Washer  Purchased No 100 Each 3,564,0000 6 24  Location Loc Oty Loc Code ST292 3564 119124 6 1122441 693									
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DQA:			Date:			WORK ORDER NON	cc	אורסנ	DAMANCE / LID	DATE			*DART
QA Closed:			Date:			WORK ORDER NON-		JINFOR	RIVIAINCE / OP		ork Order up	odate only	AEROSRACE
Work Orde	ır.					DISPOSITION			_	AGAINST DE	PARTMENT	/PROCESS	
Part N	-			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Rework Scrap		ſ	Skid-tube Machining	Crosstube Small Fab	4	Water Jet d. Eng. Coor	Engineering Quality
NCR N	lo					Use-as-is Suspected Unapproved			noforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				2	Desc	ription of work order update	Ī	nitial	Actio	on	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling					·.								
Handling/Pre Material				-									
Operator Offset/Setup Process									/	· .			
Supplier Training Transport		4.									·	•	
Unapproved	$\dashv$		李		٠								
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Landi	ng G	ear				General							
	_	Bending				Bend	Γ	Folio/P	rogram		Outside Dim	ensions	Pressure/Forced
		Centre N	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorre	ct	Temperature/Cure
		Crimp/Ki	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Und	qualified	Part Lost/M	issing	Weld
1		Cuffs		. 5,0		Contamination		4	ions Incomplete/U	nclear	Part Moved		Wrong Stock Pulled
		Crushing		Tr.		Countersink	_	Misalig	ned/off center		Positioned V		7
	-	Heat Trea				Cut Too Short	_	Mislabe	eled		Power Loss/	Surge	Other
	-		n Strip in	Tube 🌶		Drawing		Misread			<del></del>		
	Ш	Marks/Cl	natter		<b>X</b>	Drill Holes		Off-set			<del></del>		
	Ш	Turning S	equence			Finish		Out of (	Calibration			•	
Į.		Wave/Tw	vist in Tub	oe .		Fit/Function	1	Out of	Sequence				

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## D4148-041 FWD X-TUBE LUG ASSY

NOTES:
1) MATÉRIAL: N/A
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4148-041" PER DART QSI 044 6.1
7) WEIGHT: 3.67 lbs
8) ATTACH D2690-6 TO D4148-1 BY LOOPING AROUND A LIGHTENING HOLE FIRST AND THEN SECURE TO MS17984-C413

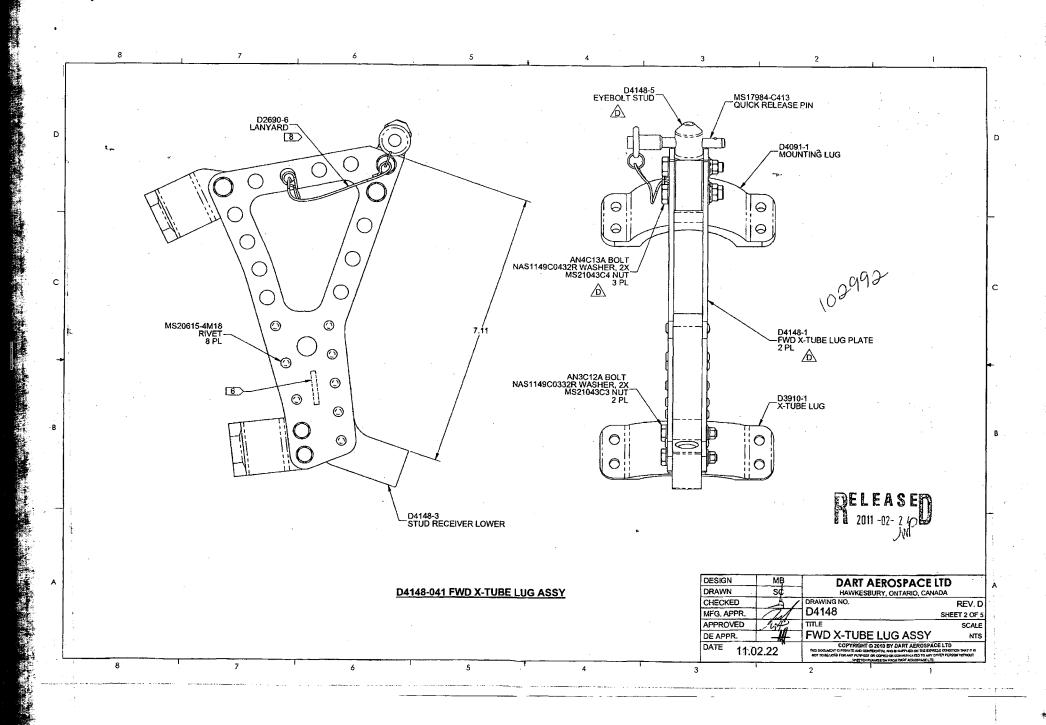
	ITEM	QTY -041	P/N	DESCRIPTION
		Х	D4148-041	FWD X-TUBE LUG ASSY
	1	1	D2690-6	LANYARD
	2	- 1	D3910-1	X-TUBE LUG
	3	1	D4091-1	MOUNTING LUG
	4	2	D4148-1	FWD X-TUBE LUG PLATE
	5	1	D4148-3	STUD RECEIVER LOWER
	6	1	D4148-5 +	EYEBOLT STUD
!				T
1	7	2	AN3C12A	BOLT
$\triangle$	8	3	AN4C13A	BOLT
\D\	9	- 1	MS17984-C413	PIP PIN
	10	8	MS20615-4M18	RIVET
i	11	2	MS21043C3	NUT
-	12	3	MS21043C4	NUT
!	13	4	NAS1149C0332R	WASHER
, L	14	6	NAS1149C0432R	WASHER

REV.	- DESCRIPTION	BY	DATE
Α	NEW ISSUE	мв	10.06.18
8	REPLACED OTY(3) MS20615-MR18 WTH OTY(2) EACH AN3C12A, MS21043-3 AND OTY(4) NAS1149C0323R WASHER (ZN D3-1, 87-2, & 84-2); MS20615-4M18 WAS MS20615-4M00 (ZN D3-1, 87-2); MS20615-4M18 WAS Ø0.129 3 PL (ZN D6-3); Ø0.129 7 PL WAS 10 PL (ZN A7-3); Ø0.191 WAS 0.129 (ZN CA-5); REASON: SEE TR-0350-607-2 REV. B.	мв	10.07.05
С	REDESIGNED D4148-1/-3 TO ADDRESS COMPATIBILITY ISSUES WITH D350-591 SHORT STEPS	мв	10.10.12
D	HOLE DIA CHANGED TO 0.252' (DB-3); HOLE DIA CHANGED TO 0.250' (CB-5); REPLACED OTY(2) AN3C12A, MS21043C3 AND OTY(4) NAS1149C0332R WITH OTY(2) AN4C13A, MS21043C4 AND OTY(4) NAS1149C0432R (D3- 1,C4-2)	sc	11.02.22

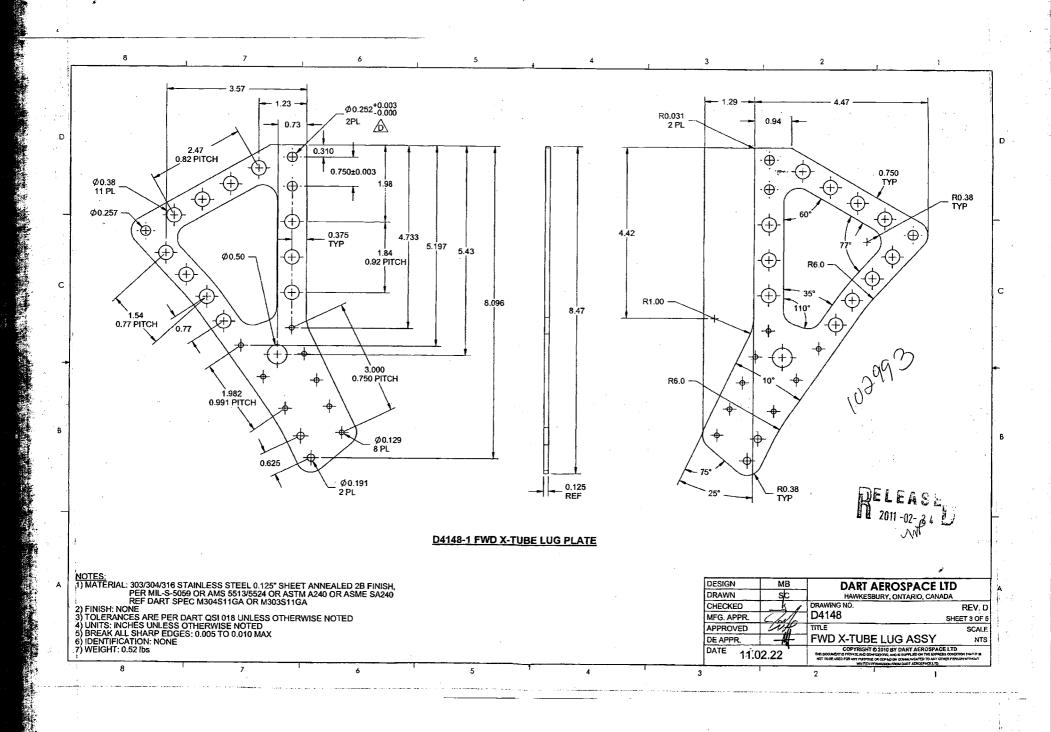
DESIGN	MB	DART AEROSPACE LID						
DRAWN	sc	HAWKESBURY, ONTARIO, CAN						
CHECKED	1	DRAWING NO.	REV. D					
MFG. APPR.	02/2	D4148	SHEET 1 OF 5					
APPROVED	MA	TITLE	SCALE					
DE APPR.	-#	FWD X-TUBE LUG ASSY	NTS					
DATE 11.0	2 22	COPYRIGHT 6 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFEDERAL AND IS SUPPLED ON THE CONFESS CONDITION THAT IT IS						

DQA:	Date:										DART.		
QA Closed:		Date:			WORK ORDER NON	-C(	ONFO	RMANCE / U		/	alaka auto 🗀	AEROSPACE	
QA CIOSEG.		Date.				_			·	ork Order up	date only		
Work Orde	er:				DISPOSITION	1	AGAINST DEPA				PARTMENT/PROCESS		
					Rework	1	Skid-tube Crosstube			7	Water Jet	Engineering	
Part N	lo.				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
				_	Use-as-is			noforming	Finishing	-	re/Packaging	Other	
NCR No.					Suspected Unapproved			Large Fab	Composite	1	Supplier		
	<b>—</b>												
Root				Desci	ription of work order update	ı	nitial	Ac	ction	Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector	
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Landii	ng Gear				General	_	i .			7		_	
	Bendin	-		<u> </u>	Bend	L	1	rogram		Outside Dim		Pressure/Forced	
	_	Not Conce	ntric		BOM/Route	$\vdash$	Grain			Over/Under	<b>⊢</b>	Set-up	
	_	CracksBroken/Damage/Defect				<u> </u>	Hardwa			Part Incorred	<del>-</del>	Temperature/Cure	
`		Kink/Ripple	e/Wave	<u> </u>	Burrs	<u> </u>	1	ion Incomplete/U	· · ·	Part Lost/Mi	ssing	Weld	
	Cuffs			-	Contamination	ļ	ŧ .	ions Incomplete/		Part Moved	L	Wrong Stock Pulled	
	Crushii	-		<u> </u>	Countersink	<u></u>	1	ned/off center	L	Positioned V		7	
:	Heat Treat				Cut Too Short	<u></u>	Mislabe			Power Loss/	Surge	Other	
		ion Strip ir	Tube	<u> </u>	Drawing	<u> </u>	Misread	d	•	****			
		Chatter			Drill Holes	<u></u>	Off-set						
		Sequence		_	Finish	<u></u>	ł	Calibration					
•	Wave/	Twist in Tu	be		Fit/Function	1	Out of Sequence						

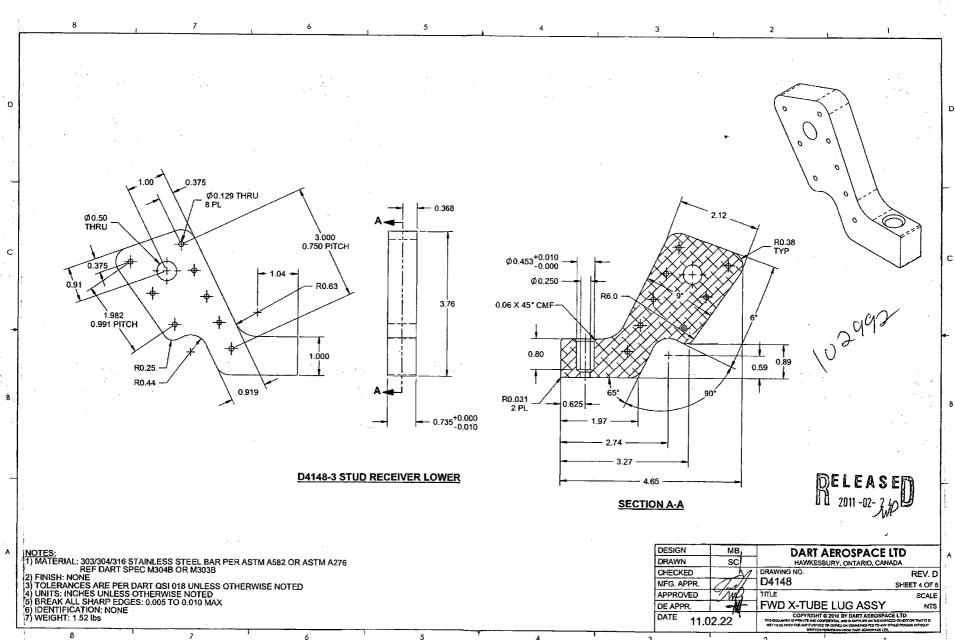
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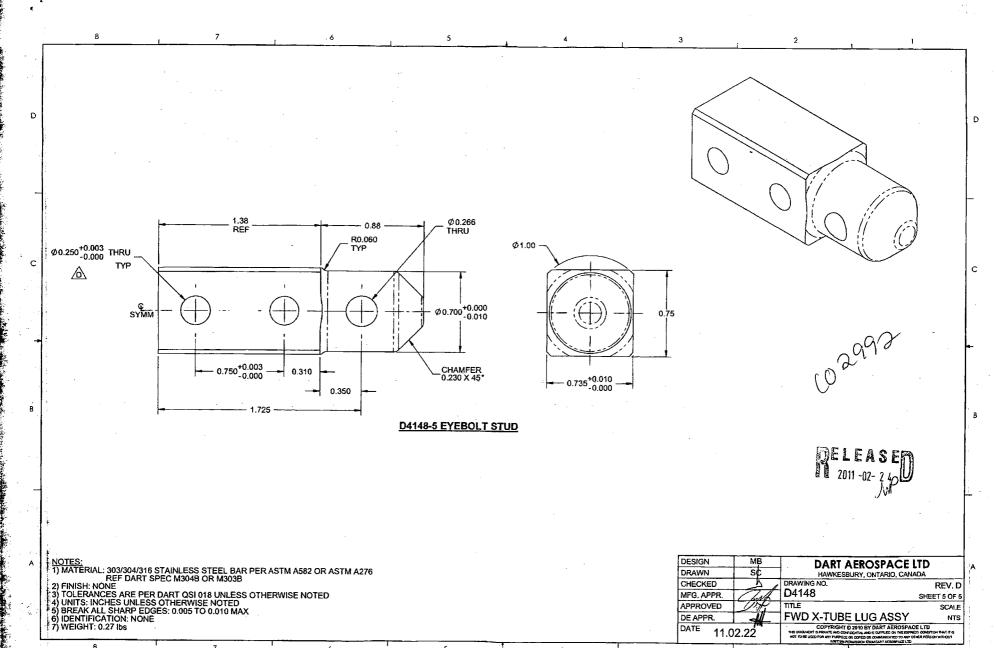
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QA Closed:		Date	:						V	Vork Order u	odate only		
Work Orde	er:				DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
					Rework	1		Skid-tube	Crosstube		Water Jet	Engineering	
Part N	lo.				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
					Use-as-is			noforming	Finishing	<b>−</b> 1	re/Packaging	Other	
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	Bendi	_			Bend		Folio/F	rogram		Outside Dim	ensions	Pressure/Forced	
	<b></b> i	e Not Conc	entric		BOM/Route		Grain			Over/Under	tolerance	Set-up	
	Crack				Broken/Damage/Defect	<u></u>	Hardwa	ire	_	Part Incorre	ct	Temperature/Cure	
		/Kink/Ripp	le/Wave		Burrs	<u>_</u>	Inspect	ion Incomplete/U	nqualified	Part Lost/Mi	ssing	Weld	
	Cuffs				Contamination		1	ions Incomplete/	Unclear	Part Moved		Wrong Stock Pulled	
	Crush	-			Countersink		1 .	ned/off center		Positioned V	Vrong	<del></del> -	
	Heat				Cut Too Short	<u></u>	Mislabe			Power Loss/	Surge	Other	
		ction Strip i	n Tube		Drawing	<u></u>	Misread						
		Chatter		<u> </u>	Drill Holes		Off-set						
		ng Sequenc			Finish		1	Calibration					
•	Wave	/Twist in Tu	ıbe		Fit/Function		Out of Sequence						



DQA:	Date:										TAART		
0.4.611			0-4-			WORK ORDER NON-	-CC	ONFO	RMANCE / U			–	AEROSPACE
QA Closed:			Date:		-					V	Vork Order u	odate only	
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
	Closed: Date:  Ork Order:  Part No.  NCR No.  Root Cause Date Step Qty  gn //Data ip/Tooling dling/Pre erial rator et/Setup iess plier ning isport					Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering
Part N	Closed: Date:  Ork Order:  Part No.  NCR No.  Root Cause Date Step Qty  ign /Data ip/Tooling dling/Pre ierial erator iet/Setup cess plier ning nsport ipproved			Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality		
	_					Use-as-is			noforming	Finishing	<del></del>	re/Packaging	Other
NCR N	No.					Suspected Unapproved		Large Fab Composite			1	Supplier	1 - 1
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Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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Landii					_	General	_	1		r-	_		7
	${f H}$	_			<u> </u>	Bend		1	rogram		Outside Dim	<u> </u>	Pressure/Forced
	$\vdash$		t Concer	ntric	<u> </u>	BOM/Route	Ŀ	Grain		-	Over/Under	<b></b> -	Set-up
	$\boldsymbol{\vdash}$				<u> </u>	Broken/Damage/Defect	<u> </u>	Hardwa		-	Part Incorre	<del>                                     </del>	Temperature/Cure
	-		ık/Ripple	/Wave		Burrs	<u> </u>	1	ion Incomplete/U	· -	Part Lost/M	· · ·	Weld
	$\overline{}$					Contamination	<u> </u>	1	ions Incomplete/	<del> </del>	Part Moved	h	Wrong Stock Pulled
	Cuffs Crushing			<u> </u>	Countersink	$\vdash$	i -	ned/off center		Positioned V	_	<b>-1</b>	
	$\blacksquare$				$\vdash$	Cut Too Short	<b></b>	Mislabe		L	Power Loss/	Surge	Other
	$\vdash$			Tube	<u> </u>	Drawing	<b>—</b>	Misread	t				
	-				<u> </u>	Drill Holes	<u> </u>	Off-set			······································		
	_	-				Finish	<u> </u>	1	Calibration				
	LV	vave/Tw	ist in Tub	oe -		Fit/Function	1	Out of S	Sequence				



DQA:	Date:											A PAR			
						WORK ORDER NON-	-CC	ONFO	RMANCE / U	PDATE					AEROSPACE
QA Closed:			Date:								W	ork Order up	date only		
Work Orde	rder: DISPOSITIO							AGAINST DEPARTMENT/PROCESS							
						Rework		Skid-tube Crosstube					Water Jet Eng		
Part N	١o.					Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	7	Quality
					_	Use-as-is		Thern	noforming	Finishing		Rec/Stor	e/Packaging	٦	Other
NCR No.						Suspected Unapproved			Large Fab	Composite			Supplier		
Root	Des				Desci	ription of work order update		nitial	Act	ion		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	ription		Date	Verification		QC Inspector
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Operator															
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			<del></del>				FA	ULT CA	TEGORY						
Landii					_	General		,		,		•	_		
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	$\vdash$		k/Ripple	/Wave		Burrs		1 .	ion Incomplete/Ur	•		Part Lost/Mi	ssing	<b>ا</b> ۷	Veld
	Cuffs					Contamination		4	ions Incomplete/U	Jnclear		Part Moved	L	\v	Vrong Stock Pulled
	_	rushing				Countersink	<u> </u>	1	ned/off center		_	Positioned V			
		eat Trea			<u> </u>	Cut Too Short	<u> </u>	Mislabe				Power Loss/Surge Other			Other
	$\vdash$	· ·	Strip in	Tube	$\perp$	Drawing	L	Misread							:
	_	1arks/Ch			<u> </u>	Drill Holes	<u> </u>	Off-set							
	—	_	equence		<u> </u>	Finish	<u> </u>	1	Calibration						
· .	L V	/ave/Tw	ist in Tub	e		Fit/Function		Out of Sequence							



DQA:	Date:										TO AC			
						WORK ORDER NON	-CC	ONFO	RMANCE / I	UPDATE		_	AEROSPACE	
QA Closed:			Date:		-	Work Order update only								
Work Orde	er:					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
						Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering	
Part N	Part No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
	_				_	Use-as-is			noforming	Finishing	-	re/Packaging	Other	
NCR No.						Suspected Unapproved			Large Fab	Composite	<b>†</b>	Supplier		
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Root					Desci	ription of work order update	l .	nitial		ction	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Des	cription	Date	Verification	QC Inspector	
Design	Ш													
Doc/Data	$\square$													
Equip/Tooling							1							
Handling/Pre												4		
Material									<u>:</u>					
Operator														
Offset/Setup	Щ					•						,		
Process														
Supplier	$\square$													
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Transport	Ш													
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Landi					_	General		1			7	_		
		ending	_			Bend		1	rogram	<u> </u>	Outside Dim	<u> </u>	Pressure/Forced	
	${f H}$	entre No	ot Concer	ntric	-	BOM/Route	<u> </u>	Grain			Over/Under	<b>—</b>	Set-up	
	${f H}$	cracks			_	Broken/Damage/Defect	L	Hardwa			Part Incorred	<b> </b>	Temperature/Cure	
	-	rimp/Kin	ık/Ripple	:/Wave	-	Burrs	<u> </u>	1	on Incomplete/	_ ·	Part Lost/Mi	ssing	Weld	
	—	Cuffs				Contamination	<u> </u>	1	ions Incomplete	· —	Part Moved	Ĺ	Wrong Stock Pulled	
	-	rushing			<u> </u>	Countersink	<u> </u>	• •	ned/off center	r 	Positioned V		·	
	$\vdash$	leat Trea			<u> </u>	Cut Too Short	<b></b>	Mislabe		L	Power Loss/	Surge	Other	
		nspection	-	Tube	<u> </u>	Drawing		Misread	1		-			
	—	Marks/Ch			<u> </u>	Drill Holes	<u></u>	Off-set						
	-	urning Se			<u> </u>	Finish	<u> </u>	4	Calibration			<u> </u>		
<u> </u>	Wave/Twist in Tube					Fit/Function		Out of Sequence						